

Mercury Management

Home Care, Nursing Homes, and Mental Health Clinics

Healthcare facilities face substantial challenges keeping costs down, competing in the marketplace, and complying with increasingly stringent and complex regulations, while maintaining a high quality of care. Recently, environmental regulatory agencies have stepped up enforcement efforts aimed at the management of mercury containing devices in the medical sector.



Pollution prevention (P2) strategies, like reducing the amount of toxic material going into a facility, are key to minimizing the environmental impact of that facility's operations. Eliminating the use of toxic substances, such as mercury, can reduce risk to healthcare professionals, patients, and the environment, as well as reducing regulatory liabilities. In addition, P2 strategies can save healthcare facilities significant amounts of money through decreased purchase, management and disposal costs.

Healthcare facilities should eliminate or reduce their use of mercury wherever possible. This will reduce the amount of mercury going into the trash and/or being incinerated, and will reduce the amount of mercury waste that needs to be properly disposed. The best way to reduce mercury at any facility is to:

1. Take a facility-wide **inventory** and recycle/dispose any old mercury or mercury-containing items stored onsite.
2. Use **source reduction** techniques to eliminate sources of mercury where possible.
3. Properly **manage the mercury** you cannot eliminate.

1) Inventory

Mercury-Containing Products at Healthcare Facilities



The first step in eliminating mercury at a healthcare facility is to identify where it is being used or stored. Conduct a survey or create an inventory of mercury-containing products throughout the facility. Broken mercury-containing items are often stored in the back of closets or in basement areas because employees are not sure how to properly dispose of them. Mercury can be found in many items including:

fluorescent bulbs, thermostats, tilt switches, relays, thermometers, gastrointestinal tubes, sphygmomanometers (blood pressure cuffs), vacuum gauges, manometers, computer monitors, televisions and button batteries. Mercury is also used in laboratories as a reagent and catalyst for such tests as Chemical Oxygen Demand (COD), and in staining, fixative, and preservative applications.



- Instruments, Products, and Laboratory Chemicals Used in Hospitals
That May Contain Mercury - Chapter 2-3 in Health Care Without Harm's *Going Green*
www.noharm.org/library/docs/Going_Green_List_of_Mercury-Containing_Items_i.pdf
- Medical Facility Mercury Survey
www.uml.edu/centers/LCSP/hospitals/HTMLSrc/IP_Merc_Tools_Medfacility.html

Mercury Cleanout

Once you have identified the old or broken mercury-containing items that are stored at the facility (as well as other items that are universal or hazardous waste), you need to have them properly recycled or disposed of as hazardous waste. For a list of mercury recyclers that service N.H., see www.des.state.nh.us/nhphp/vendors.htm.



2) Source Reduction

The best way to keep mercury-containing products out of the waste stream is to purchase and use products that do not contain mercury. It is imperative to work with the facility's procurement staff so that once the mercury-containing items have been removed from the healthcare facility; they do not come back in through the receiving dock! Talk to the purchasing director to check with suppliers to see if mercury-free products are available in the current contract. If mercury-free products are not offered with the current contracts, then talk to the group purchasing organization (GPO) and suppliers to request additional alternatives.

Fortunately, the use of mercury in medical and laboratory equipment and procedures is diminishing with the advent of non-mercury technologies (such as digital thermometers) and changes in laboratory practices, including conversion to micro-scale procedures. These source reduction techniques promise significant mercury reductions in New Hampshire as several healthcare facilities in the state have implemented a program for, or expressed interest in, going "mercury free."

- Institute Best Management Practices
www.uml.edu/centers/LCSP/hospitals/HTMLSrc/IP_Merc_How_InstBMP.html

Mercury-free Alternative Products Are Available For Healthcare Facilities

Healthcare facilities can reduce their use of mercury by replacing mercury-containing instruments (like thermometers and sphygmomanometers) with non-toxic alternatives. Many healthcare facilities have done this already, in response to the exorbitant cost of mercury spills, or to reduce their liability. High quality, workable alternatives already exist for most mercury-containing products and many hospital suppliers/vendors carry these alternatives.

- Mercury Reduction (alternative product listings)
www.uml.edu/centers/LCSP/hospitals/HTMLSrc/IP_Mercury.html
- Four ways to find alternative products
www.sustainablehospitals.org/cgi-bin/DB_Index.cgi.

3) Proper Mercury Management

Even with the best of efforts, it may not be possible to get rid of absolutely all the mercury in a facility. If using products that contain mercury, all appropriate facility personnel such as cleaning staff, facility management, and clinicians, must be trained to ensure that these items are recycled or disposed of properly, so they do not end up in red bags, where they could be incinerated or autoclaved. Often only "key" personnel are trained, and the information does not make it down to all of the staff that may use red bags for disposal of mercury-containing waste.



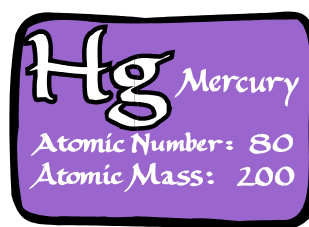
In addition, ensure that mercury spill cleanup kits are located near where mercury products are used and staff are trained on how to properly clean up mercury spills. Emergency contact information, in case of a spill, should also be posted nearby.

The following sites contain information on how to clean-up mercury spills. If you do have a mercury spill, it needs to be reported to the state. Immediately call DES's Special Investigation Unit at 603-271-3899, from 8-4:00 Monday through Friday, or after hours, contact the State Police at 1-800-346-4009.

- Mercury Reduction: Spills
www.uml.edu/centers/LCSP/hospitals/HTMLSrc/IP_Merc_BMP_Spills.html
- Cleaning Up Household Spills of Elemental Mercury
www.des.state.nh.us/factsheets/hw/hw-15.htm

Universal Waste Rules - Mercury

Spent mercury-containing devices may be managed as universal waste if they are recycled, or as hazardous waste if they are disposed. Universal wastes are wastes that meet the definition of hazardous waste in the *N.H. Hazardous Waste Rules*, but during accumulation and transport, pose a relatively low risk compared to other hazardous wastes. Wastes that DES has determined meet universal waste criteria include mercury-containing lamps and devices, used antifreeze, certain types of batteries, cathode ray tubes, and recalled or suspended hazardous waste pesticides regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).



Generally, it is easier and cheaper to manage a waste as a universal waste, and regulations governing universal waste are less stringent than those governing hazardous waste. However, universal wastes must be stored properly to prevent release, labeled correctly, and self-transported or shipped with a Bill of Lading to an approved recycling or disposal facility.

- Universal Waste Management
www.des.state.nh.us/nhppp/uw/